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ABSTRACT

A study investigated a decline in student achievement and related issues that was associated with a drop of 1.60 points on the mean achievement scores of 9th graders attending high school in Kosrae, Micronesia on the Secondary Level English Proficiency test. Research questions included the following: (1) What knowledge and skills are emphasized at grade 8? (2) What instructional materials are used at grades 8 and 9? (3) What teaching and assessment methods are used at both grade levels? (4) What are the teacher expectations for incoming 9th graders? (5) How is student learning occurring at grades 8 and 9? (6) How well do the students understand the grading standards at grades 8 and 9? (7) What skills are most helpful at grade 8? (8) What skills are most needed at grade 9? (9) What activities are helpful at grades 8 and 9? Surveys were sent to all 10 eighth grade teachers, all 11 ninth grade teachers, 168 eighth grade students, and 180 ninth grade students. Findings and their implications are discussed. Survey instruments are appended. (RH)

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A Report to Pacific Educational Researchers

TEACHERS AND STUDENTS AS RESOURCES FOR IMPROVING INSTRUCTION

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I. INTRODUCTION

Kosrae State consists of the island of Kosrae which has 42 square miles and lies at the eastern end of the Federated States of Micronesia. Formerly part of the Ponape District, in January 1977 it became the seventh district in the Trust Territory of the Pacific Islands. The population of Kosrae is approximately 7,000, with more than 50% under 18 years of age.

There are six public elementary schools and one high school in Kosrae, with approximately 2,300 students. These students are predominantly Micronesians, but there are also a few Filipinos, Caucasians, and Black Americans. Six different home languages are prevalent, including English, Kosraean, Marshallese, Palauan, Pohnpeian, and Trukese. By law, English and Kosraean are used in official discourse, but the English language prevails (Kosrae State Constitution) when there is a misunderstanding in interpretation.

At the school level, oral English language is introduced in first grade and used as the medium of instruction beginning in the fourth grade. According to the Kosrae Frameworks-Language, students gradually learn and use English so that by twelfth grade they use English 90% of the time in class. Kosraean language, on the other hand, is taught from preschool to ninth grade. In practice, both languages are used interchangeably in the classroom when concepts are difficult to grasp and/or vocabulary is culturally irrelevant.

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II. BACKGROUND

This research project was initiated as a Pacific Region Education Program (PREP) Research and Development (R&D) Cadre local project for Kosrae state. The two R&D Cadre members from the Department of Education central office decided to undertake this investigation when a mean achievement drop of 1.60 points occurred on the Secondary Level English Proficiency test scores by ninth graders as compared to the eighth graders. It was predicted that mean scores of each grade level would increase at upper grade levels based upon an increase of 6.04 points between seventh and eighth graders. In addition to test scores, there were concerns expressed by the teachers at the high school that entering ninth grade students were not adequately prepared, which forced them to reteach concepts taught at the eighth grade level. It was hypothesized that incoming ninth graders may experience different instructional styles and materials, evaluation standards, and expectation levels by teachers. Other factors such as the social and physical environments, busing schedules, and attitudes might also have influenced the performance of the ninth grade students.

The following research questions were posed to address the decline in student achievement and corollary issues:

Regarding Teachers and Teaching:

- What knowledge and skills are emphasized at grade 8?
- What instructional materials are used at grade 8 and 9?
- What teaching and assessment methods are used at both grade levels?
- What are the teacher expectations of incoming ninth graders?

Regarding Students and Learning:

- How is student learning occurring at grades 8 and 9?
- How well do the students understand the grading standards at grades 8 and 9?
- What skills are most helpful at grade 8?
- What skills are most needed at grade 9?
- What activities are helpful/useful at grades 8/9?

III. METHODS

The methods used in this study were teacher and student surveys. Questionnaires were developed and sent out to all ten of the eighth grade teachers and all eleven ninth grade teachers. Of the total, 50% of the questionnaires were returned, 66% at the high school level and 40% at the elementary school level. No known bias was reflected in the returns.

Teacher Survey

The questionnaire used with eighth grade teachers included the following items:

- Please list the concepts or skills you emphasize to ensure that your eighth graders will function effectively in grade 9.
- Please list and describe the teaching methods used in grade 8.
- Please list and describe the evaluation criteria or type of tests used to monitor or measure students' performance at grade 8.

The questionnaire used with ninth grade teachers included the following items:

- What are your expectations of your incoming ninth graders? Please list the concepts or skills the eighth grader should possess or master to be successful in grade 9
- Please list and describe the teaching methods used most in grade 9.
- Please list and describe the evaluation criteria or types of tests used to monitor or measure students' performance in grade 9.

The teacher survey instruments are included in the appendix.

Student Survey

An 18-item questionnaire was administered to 168 eighth graders in five elementary schools and 180 ninth graders in the only high school on Kosrae.

The student survey investigated the following questions:

- How do students feel about the ways in which concepts are taught? Do they get extra help and attention from the teacher? Do they feel the teacher has high expectations from them?
- Are assessment practices fair? Are students familiar with the grading standards of the teacher?
- Do students know disciplinary rules and are rules fairly executed?
- Are good grades and satisfactory citizenship recognized and rewarded?
- What instructional activities and skills are most helpful at grade 8?
- What instructional activities and skills are most needed at grade 9?

The results of the students' questionnaire survey were grouped into the following three areas:

- student learning
- assessment
- behavior/conduct

IV. FINDINGS

Teacher Survey

Table 1 presents the knowledge areas and skills that are emphasized in grade 8 as reported by the four eighth grade teachers and the knowledge areas and skills the seven ninth grade teachers expect the children to have when they enter grade 9.

Table 1. Emphasis and Expectations in Knowledge and Skills

	Knowledge and Skills Emphasized in Grade 8	Knowledge and Skills Expected at Entrance to Grade 9
Concepts		
o reading comprehension	1 of 4	2 of 7
word attack	0 of 4	1 of 7
o vocabulary	1 of 4	1 of 7
o language structure	1 of 4	3 of 7
o geography	2 of 4	0 of 7
o culture	2 of 4	0 of 7
o civilization	1 of 4	0 of 7
o citizenship	1 of 7	0 of 7
o communication	0 of 4	1 of 7
oral/listening	0 of 4	5 of 7
o writing	1 of 4	6 of 7
Skills		
o chart/graph	2 of 4	0 of 7
o comparing	1 of 4	1 of 7
o analysis	1 of 4	0 of 7
o research skills	2 of 4	0 of 7
o data collection	1 of 4	1 of 7
o study skills	1 of 4	0 of 7

Ninth grade teachers expect incoming students to have skills in language structure, listening/communication, and writing. Eighth grade teachers do not consistently report that they emphasize those skills. This may well be due to the fact that eighth grade teachers are departmentalized and tend to focus on their subject area disciplines rather than on building basic language skills. Interestingly, ninth grade teachers do not expect students to be knowledgeable in geography, culture, civilization, and citizenship. In addition, eighth grade teachers report a somewhat heavier emphasis on higher-order thinking skills that apparently are not expected by ninth grade teachers.

Table 2. Teaching Methods

	Eighth	Ninth
Individual work	1 of 4	3 of 7
Pairing	1 of 4	0 of 7
Group work	2 of 4	0 of 7
Whole class discussion	3 of 4	6 of 7
Student presentation	2 of 4	2 of 7
Homework	2 of 4	3 of 7
Assessment	2 of 4	4 of 7
Lecture	2 of 4	4 of 7
Review of previous lesson	0 of 4	1 of 7
Demonstration	0 of 4	1 of 7
Text reading	0 of 4	1 of 7

Eighth grade and ninth grade teachers tend to use the same teaching methods with one exception. There is no indication, according to the survey, that ninth grade teachers teach to small groups or pairs.

Table 3. Classroom Assessment Practices		
	Eighth	Ninth
Written report	1 of 4	3 of 7
Oral presentation	1 of 4	2 of 7
Performance	1 of 4	4 of 7
Test (teacher-made)	3 of 4	4 of 7
Essay	1 of 4	1 of 7
True/false	1 of 4	3 of 7
Multiple choice	1 of 4	4 of 7
Participation	0 of 4	2 of 7
Teacher/student conference	1 of 4	0 of 7
Quarter report	1 of 4	1 of 7
Problem solving	0 of 4	2 of 7
Quizzes	1 of 4	2 of 7

The survey indicates that both eighth and ninth grade teachers use a variety of classroom assessment procedures. Paper/pencil tests come in many forms, which include quizzes, periodic tests, essays, true/false, multiple choice, etc. It is clear that teacher-made tests are the most frequently used evaluation methods in both eighth and ninth grade. In contrast to eighth grade teachers, the ninth grade teachers value classroom participation as a form of performance assessment.

Student Survey

The following table shows the results of the survey of students at both eighth and ninth grades toward learning activities, assessment practices, and discipline matters.

This instrument has a five point Likert-type scale with the following values:

5 is always

4

3 is sometimes

2

1 is never

Table 4. Eighth Grade Student Survey

	always		sometimes		never	Mean
1. I feel like I am learning a lot in my class.	(92)	(25)	(40)	(7)	(2)	4.19
2. My teachers explain things in class so that I understand them.	(80)	(29)	(50)	(6)	(1)	4.09
3. My teachers expect me to do my very best.	(91)	(10)	(42)	(10)	(9)	4.01
4. I know exactly what I am supposed to be working on when I am in class.	(57)	(29)	(79)	(2)	(1)	3.84
5. My teachers make it easy to learn, even when the subject is hard.	(59)	(29)	(67)	(5)	(3)	3.83
6. The tests I take in class seem fair.	(55)	(37)	(62)	(6)	(6)	3.78
7. I know why we are studying particular things in my class.	(52)	(36)	(64)	(11)	(5)	3.71
8. When I do in terms of citizenship or grades, my good work is recognized and rewarded. [sic]	(60)	(19)	(71)	(11)	(6)	3.69
9. When I get homework assignments, it is clear what I am supposed to do.	(55)	(22)	(76)	(10)	(5)	3.69
10. I know exactly what misbehavior will get me into with teachers and/or principal.	(65)	(23)	(56)	(9)	(15)	3.68
11. My teachers are friendly and try to understand me.	(54)	(26)	(70)	(12)	(6)	3.65
12. I am busy doing schoolwork almost all day.	(41)	(23)	(79)	(14)	(11)	3.41
13. When I have trouble learning something, I get extra help from my teachers.	(41)	(19)	(80)	(14)	(13)	3.37
14. My teachers pay as much attention to me in class as they do to others.	(41)	(23)	(70)	(16)	(17)	3.33
15. When I do homework problems, I am able to get them right.	(31)	(23)	(91)	(13)	(9)	3.32
16. I understand exactly how my school-work will be graded.	(42)	(21)	(71)	(11)	(21)	3.31
17. I know what the consequences are for different kinds of misbehavior.	(47)	(21)	(51)	(22)	(27)	3.23
18. When it comes to discipline, all students get treated the same.	(26)	(12)	(94)	(18)	(18)	3.06

Table 5. Ninth Grade Student Survey

	always		sometimes		never	Mean
1. My teachers expect me to do my very best.	(113)	(12)	(32)	(13)	(11)	4.12
2. I know exactly what I am supposed to be working on when I am in class.	(91)	(21)	(59)	(5)	(4)	4.06
3. I feel like I am learning a lot in my class.	(91)	(19)	(46)	(3)	(11)	4.04
4. My teachers explain things in class so that I understand them.	(86)	(19)	(62)	(7)	(6)	3.96
5. When I get homework assignments, it is clear what I am supposed to do.	(84)	(22)	(60)	(5)	(7)	3.96
6. My teachers make it easy to learn, even when the subject is hard.	(78)	(17)	(70)	(5)	(5)	3.90
7. I know why we are studying particular things in my class.	(75)	(31)	(54)	(7)	(8)	3.90
8. My teachers are friendly and try to understand me.	(76)	(15)	(63)	(8)	(15)	3.73
9. The tests I take in class seem fair.	(63)	(28)	(69)	(4)	(13)	3.70
10. I understand exactly how my school-work will be graded.	(74)	(20)	(56)	(7)	(19)	3.69
11. I know exactly what misbehavior will get me into with teachers and/or principal.	(79)	(13)	(58)	(7)	(24)	3.64
12. When I do homework problems, I am able to get them right.	(56)	(20)	(81)	(7)	(10)	3.60
13. When I have trouble learning something, I get extra help from my teachers.	(63)	(15)	(74)	(13)	(13)	3.57
14. When I do in terms of citizenship or grades, my good work is recognized and rewarded. [sic]	(50)	(27)	(70)	(8)	(20)	3.45
15. I know what the consequences are for different kinds of misbehavior.	(55)	(18)	(53)	(21)	(26)	3.32
16. I am busy doing schoolwork almost all day.	(36)	(32)	(73)	(8)	(21)	3.31
17. My teachers pay as much attention to me in class as they do to others.	(50)	(18)	(71)	(9)	(27)	3.31
18. When it comes to discipline, all students get treated the same.	(37)	(16)	(77)	(13)	(33)	3.06

Table 4 presents the rank order of the means and frequency distributions for the 18 survey items at the eighth grade level. Items 1 through 6 show the strongest positive reactions and include teacher' expectations, teaching skills, and students' perceived levels of learning. The responses to these six items show limited variations and are all heavily skewed to the positive end of the scale.

Items 7 through 11 all have means above 3.50 and distributions also are skewed to the positive ends of each scale. The remaining items, 12 through 18, have means below 3.50 and the distribution of responses tends to show wider variations. Items seem to cluster in two areas. The first concerns such things as equity in discipline and teacher attention, and understanding consequences of behavior. The second concerns grading, homework, and the amount of schoolwork during the day (time on task).

Regarding Table 5, the ninth grade student survey, items 1 through 7 all have very positive student ratings of 3.90 or higher. As in the eighth grade results, these items tend to reflect the level of teachers' expectations, teaching skills, level of learning, and clarity and understanding of homework assignments and in-class discussions.

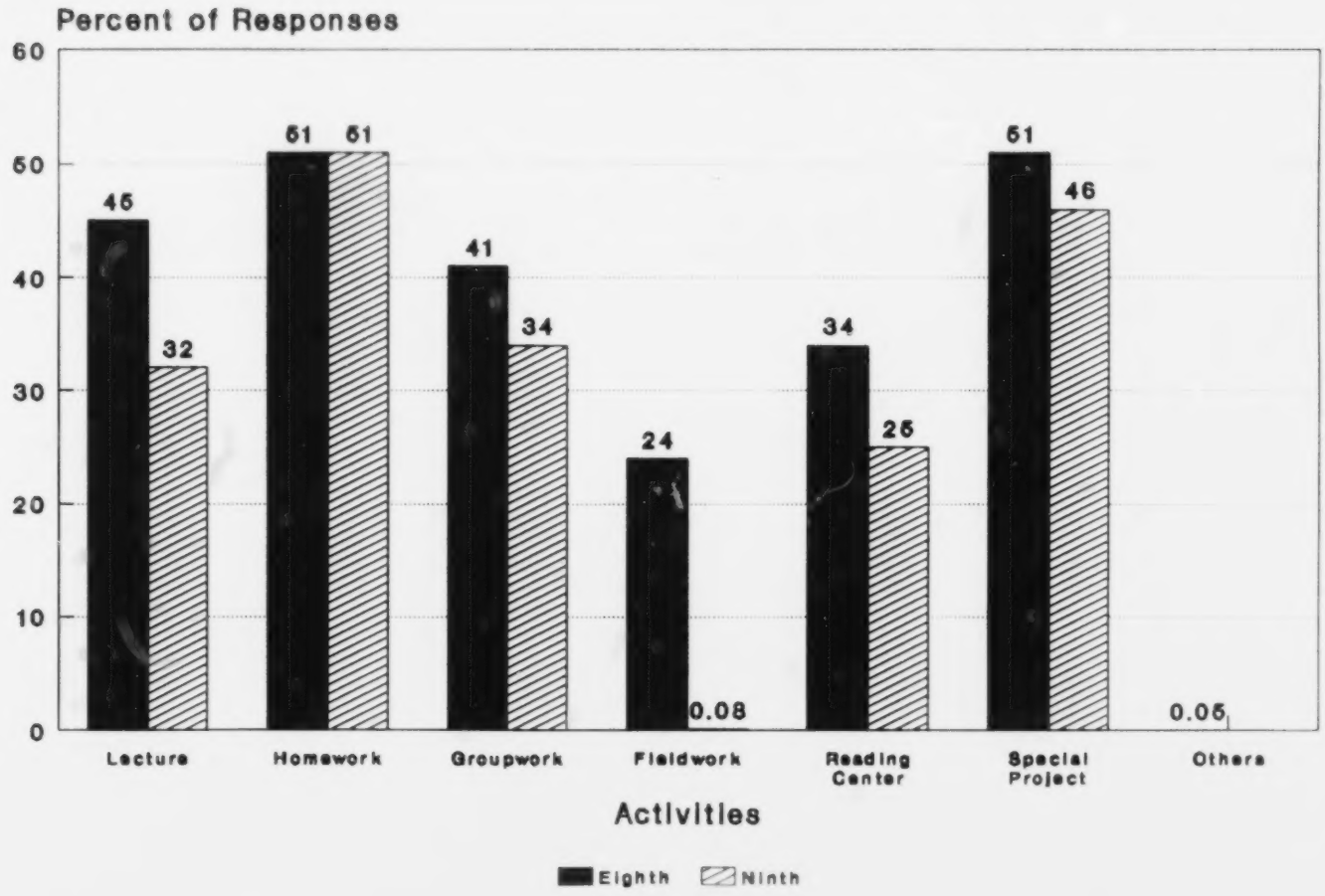
Items 14 through 18 all have means below 3.50 and a more varied distribution of responses. Again, as in grade 8, these items focus on equity of discipline and teacher attention as well as the consequences of misbehavior.

An analysis of the eighth grade and ninth grade surveys shows a very similar pattern between both groups of students on the relative rank ordering of survey items. On the average, students seem better satisfied with learning activities as compared to assessment practices and discipline matters. However, ninth grade satisfaction ratings are somewhat higher than eighth grade ratings in assessment and discipline. In assessment practices, students tend to be almost always satisfied at both grade levels. At both grade levels, students indicate that their teachers have high expectations of them. The area of most concern to both grade levels is the understanding and "fairness" of discipline, and the consequences of behavior.

In this survey, eighth graders were also asked which learning activities are most helpful to them. Ninth graders were asked which activities at grade 8 were most useful at grade 9. Chart 1 compares eighth graders to ninth graders on the same instructional activities.

The final question posed to both eighth and ninth grade students was, "What skills do you need most help in?" Responses of the students are presented in Chart 2.

Most Helpful/Useful Activities
Eighth and Ninth

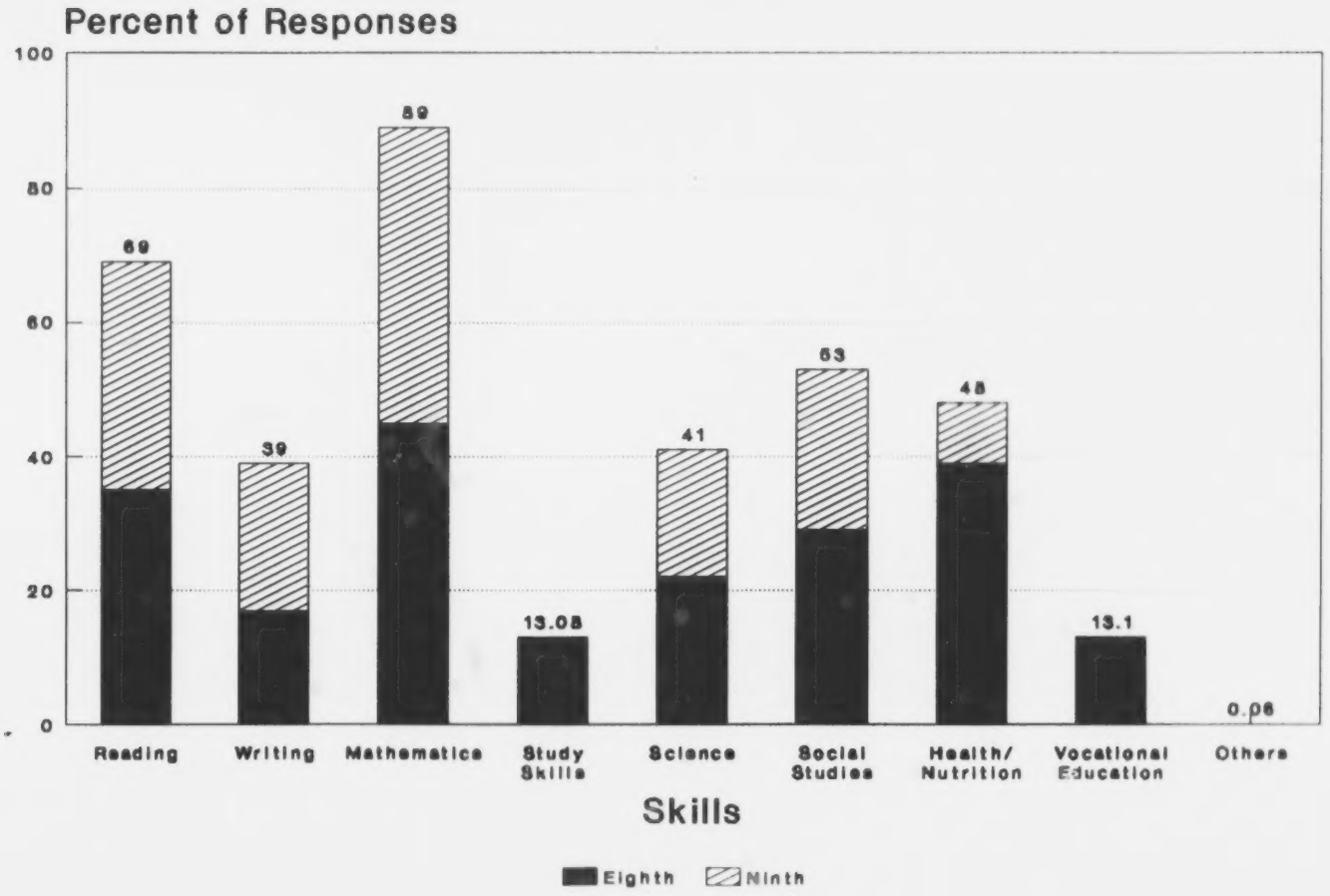


8th-n=170; 9th-n=180

Chart 1

What Skills Do You Need Most Help In?

Eighth and Ninth Grades



N = 8th - 168, 9th -180

Chart 2

Eighth graders tend to feel that the instructional activities most helpful to them are homework and special projects. Next to these in priority are lecture and group work. Ninth graders consider homework and special projects in eighth grade as highly useful to them as ninth graders. Both homework and special projects seem to dominate other activities in terms of importance. However, eighth graders valued lecture as a helpful activity while ninth graders consider group work useful over other instructional activities. Note that while eighth graders value fieldwork, the ninth graders did not report this activity as being useful to them.

It appears that mathematics, reading, and health/nutrition are areas of greater need for eighth graders. Similarly, mathematics and reading were perceived as highest need areas by ninth graders. It is interesting to note that no ninth graders felt a need for help in vocational education and study skills.

V. CONCLUSION

- Ninth grade teachers expect eighth grade students to have mastered the basic skills in language development. However, the eighth grade teachers do not actively emphasize instruction in language arts. It may be that eighth grade teachers assume the students have language arts facility, and they focus on their own instructional discipline areas instead.

- Both eighth and ninth grade teachers report using the same general teaching methods. Thus, it is assumed that students moving from grade 8 to 9 are familiar with the various instructional approaches used. The ninth grade teachers, however, indicate they do not organize instruction in small groups.

- Methods of classroom/student assessment are very similar in both grades. The one exception appears to be that ninth grade teachers value student participation more than eighth grade teachers.

- Students generally provided favorable assessments of their level of learning and the instruction they received. They report, however, concern in the areas of discipline, consequences of behavior, and equal attention from their teachers.

- Both groups of students agree that they need the most help in reading and mathematics. Eighth grade youngsters also reported that they needed help in health/nutrition skills. It is important to note that only 13% of eighth graders and no ninth graders reported that assistance in improving study skills was needed.

VI. IMPLICATIONS

As indicated at the beginning of this paper, standardized test scores dropped from grade 8 to grade 9. There are many factors that may contribute to the drop in test scores at ninth grade. Ninth graders need to adjust to the environment, e.g., social and physical. They start to intermingle with other villagers, and changes in the physical environment include new classroom set ups and more complex equipment and technology to learn. Another factor is their ability to manage time. Students in high school are expected to be more independent and able to adjust themselves to the high school setting. They need to use their time effectively and be more aggressive in getting extra help from busy teachers. The change from guided activities at eighth grade to more independence at the ninth grade is an add-on to the learning difficulties of ninth graders. These factors need to be investigated more in-depth. Specifically, the following questions need to be asked:

Are the language arts skills of ninth graders sufficient to handle the increasingly complex curriculum? Is an inadequate level of basic skill development a cause for test score decline?

Does the lack of emphasis on small group and paired instruction at grade 9 affect student learning and subsequent test scores?

Does student concern over discipline and equitable treatment affect achievement levels?

Is lack of emphasis on teaching study skills and students' perceptions of their value hindering achievement?

All the items in the questionnaires were written in the English language and could be misinterpreted. Some responses from the eighth grade teachers (which forced the researchers to refer to Kosrae Curriculum Framework scope and sequence and Instrument for the Observation of Teaching Activities) are omitted due to ambiguities.

APPENDIX

Survey Instruments

Teacher Survey
Elementary

1. Please list the concepts or skills you emphasize to ensure your 8th graders to function effectively in grade 9?

2. List and describe the instructional materials used in grade 8.

3. List and describe the teaching methods used in grade 8.

4. List and describe how students are being assessed in your grade 8 classes. for example. the kind of criteria used and/or types of tests you administer that measure the performance of your students.

Student Survey
Elementary School

Kindly respond to the following questionnaires at the best of your knowledge. Your response will be used as a basis in improving our school system both at the elementary and high school levels.

= = = =

14. My teachers are friendly and try to understand me. 5 4 3 2 1

15. I know exactly what misbehavior will get me into with teachers and/or principal. 5 4 3 2 1

16. I know what the consequencies are for different kinds of misbehavior. 5 4 3 2 1

17. When it comes to descipline, all students get treated the same. 5 4 3 2 1

18. When I do in terms of citizenship or grades, my good work is recognized and rewarded. 5 4 3 2 1

==========

II. Read the two following questions and please mark the bubbles most appropriate to you.

19. What learning activities are most helpful to you?

o lecture o homework o groupwork

o fieldwork o reading center o special project

o others(specify)_____

20. What skills do you need most help in?

o reading o writing o mathematics

o study skills o science o social studies

o health o vocational education

o others(specify)_____

Teacher Survey
High School

1. What are your expectations of your incoming 9 graders? Please list the concepts or skills the 8 graders should possess to be successful in grade 9.

2. List and describe the instructional materials you used in grade 9.

3. List and describe the teaching methods you used in grade 9.

4. Please list and describe the how students are being assessed in your 9 grade classes. for example, the kinds of criteria used and/or types of tests you administered that measure the performance of your students.

Student Survey
High School

Kindly respond to the following questionnaires at the best of your knowledge. Your response will be used as a basis in improving our school system both at the elementary and high school levels.

= = = =

14. My teachers are friendly and try to understand me. 5 4 3 2 1

15. I know exactly what misbehavior will get me into with teachers and/or principal. 5 4 3 2 1

16. I know what the consequencies are for different kinds of misbehavior. 5 4 3 2 1

17. When it comes to descipline, all students get treated the same. 5 4 3 2 1

18. When I do in terms of citizenship or grades, my good work is recognized and rewarded. 5 4 3 2 1

= = = =